

UNITED STATES DISTRICT COURT  
WESTERN DISTRICT OF WASHINGTON  
AT SEATTLE

DATAPRO INTERNATIONAL INC., a  
Delaware corporation,

Plaintiff,

v.

LG ELECTRONICS U.S.A., INC., a  
Delaware corporation, and LG  
ELECTRONICS, INC., a Korean  
corporation,

Defendants.

No. \_\_\_\_\_

**COMPLAINT FOR DAMAGES  
AND INJUNCTIVE RELIEF**

**DEMAND FOR JURY TRIAL**

COMES NOW Plaintiff DataPro International Inc., by and through its undersigned  
attorney, and alleges as follows:

**PARTIES**

1. Plaintiff DataPro International Inc. ("DataPro") is a Delaware corporation with  
its principal place of business at 1144 NW 52nd St., Seattle, Washington 98107.

1           2.       Upon information and belief, Defendant LG Electronics, Inc. (“LGE”) is a  
2 corporation organized under the laws of the Republic of Korea, with its principal place of  
3 business at San 4-1, Nakesongdae-Dong, Kwanak-Gu, Seoul 151-919, Korea.

4           3.       Upon information and belief, Defendant LG Electronics U.S.A., Inc.  
5 (“LGEUSA”) is a Delaware corporation with its principal place of business at 1000 Sylvan  
6 Avenue, Englewood Cliffs, New Jersey 07632. Upon information and belief, LGEUSA is a  
7 wholly owned and controlled subsidiary of LGE.  
8

9           4.       Defendants LGE and LGEUSA are collectively referred to as “LG Electronics.”  
10

### 11                               **JURISDICTION AND VENUE**

12           5.       This is a civil action seeking damages and injunctive relief for copyright  
13 infringement, for willful copyright infringement, for removal or alteration of copyright  
14 management information, and for falsification of copyright management information.

15           6.       The Court has original subject matter jurisdiction over this action pursuant to  
16 the provisions of the Copyright Act, 17 U.S.C. § 101 *et seq.*, 28 U.S.C. § 1331, and 28 U.S.C. § 1338.  
17

18           7.       The Court has personal jurisdiction over Defendants, who have sufficiently  
19 continuous, systematic, and routine contacts with Washington to establish such jurisdiction,  
20 by regularly marketing, distributing, and selling their products to distributors, retailers, and  
21 consumers in Washington, by regularly conducting and soliciting business in Washington, by  
22 deriving substantial revenue from goods and services provided to persons and/or entities in  
23 Washington, and by copying DataPro materials that reside in Washington.  
24

25           8.       Venue is proper in this judicial district under 28 U.S.C. §§ 1391(b) and (c) and 28  
26 U.S.C. § 1400(a) because a substantial part of Defendants’ wrongful acts alleged herein  
27

1 occurred in and caused injury to DataPro in Washington, because the intellectual property at  
2 issue resides in Washington, because Defendants are subject to personal jurisdiction in this  
3 judicial district, and because Defendants may be found in this judicial district.

4 **BACKGROUND**

5 9. DataPro is in the business of manufacturing and selling data cable products,  
6 connectors, and related accessories and services. To promote its products and services,  
7 DataPro maintains a detailed website containing text, graphics, and photographs at  
8 www.DataPro.net (the "DataPro Website"). The DataPro Website was created and is  
9 maintained in Seattle, Washington.  
10

11 10. The DataPro Website is protected under United States copyright law. DataPro  
12 has two separate registered copyrights in its Website with the United States Copyright Office. It  
13 received copyright certificate # TXu 1-596-528, effective October 24, 2008 (the "DataPro Web  
14 Pages Copyright"), and copyright certificate # TXu 1-647-313, effective February 18, 2008 (the  
15 "A Complete Guide to the Digital Video Interface Copyright"). True and correct copies of these  
16 certificates are attached to this Complaint as Exhibit A. A representative sample of the  
17 materials covered by the DataPro Web Pages Copyright is attached to this Complaint as Exhibit  
18 B. The materials covered by the A Complete Guide to the Digital Video Interface Copyright are  
19 attached to this Complaint as Exhibit C.  
20

21 11. The DataPro Web Pages Copyright and the A Complete Guide to the Digital  
22 Video Interface Copyright are collectively referred to as the "DataPro Copyrights."  
23

24 12. The DataPro Website contains a copyright notice on each page, which states "©  
25 1995-2013 DataPro International Inc." Aside from the appropriate adjustments to the range of  
26  
27

1 years, this copyright notice has been present since DataPro created the first version of its  
2 Website in 1995.

3 13. In addition to the copyright notice, the pages on the DataPro Website featuring  
4 material registered under the A Complete Guide to the Digital Video Interface Copyright  
5 display an additional and separate notice: "Written by Anthony van Winkle for DataPro  
6 International Inc. Unauthorized duplication strictly prohibited."

7  
8 14. Although LG Electronics is well-known for its liquid crystal televisions, it is,  
9 upon information and belief, a competitor business to DataPro that also sells data cable  
10 products, connectors, and related accessories and services.

11  
12 15. On September 9, 2010, DataPro discovered that LG Electronics was  
13 reproducing, distributing, and displaying substantial material from the DataPro Copyrights on  
14 various web pages in its lgknowledgebase.com domain without authorization, specifically on  
15 the following URLs: <http://lgknowledgebase.com/kb/index.php?View=entry&EntryID=2922>;  
16 <http://lgknowledgebase.com/kb/index.php?View=entry&EntryID=2923>;  
17 <http://lgknowledgebase.com/kb/index.php?View=entry&EntryID=2925>;  
18 <http://lgknowledgebase.com/kb/index.php?View=entry&EntryID=2926>; and  
19 <http://lgknowledgebase.com/kb/index.php?View=entry&EntryID=2930>.

20  
21 16. DataPro's copyright notices were not present on the URLs identified in  
22 Paragraph #15.

23  
24 17. On or around September 9, 2010, DataPro send formal written notice of these  
25 violations to LG Electronics.

26 18. LG Electronics did not respond to DataPro's September 9, 2010, notice.  
27

1           19.       On or around October 8, 2010, a review by DataPro found that LG Electronics  
2 continued to reproduce, distribute, and display substantial material from the DataPro  
3 Copyrights without authorization on the URLs identified in Paragraph #15.

4           20.       On or around February 3, 2011, a review by DataPro found that LG Electronics  
5 had altered or removed the unauthorized material from the URLs identified in Paragraph #15.  
6

7           21.       On or around August 28, 2012, DataPro discovered that LG Electronics was  
8 reproducing, distributing, and displaying substantial material from the DataPro Copyrights on  
9 various web pages in its lg.com domain without authorization, specifically on  
10 <http://www.lg.com/my/support/product-help/doc-2121426-en-LGEML>.  
11

12           22.       DataPro's copyright notices were not present on the URL identified in  
13 Paragraph #21.

14           23.       On or around August 28, 2012, DataPro sent formal notice of the violation to LG  
15 Electronics.  
16

17           24.       On or around August 29, 2012, LG Electronics responded to DataPro from its  
18 LG\_care\_center@lge.com address, writing "...[f]irst of all, I wish to thank you for your  
19 feedback. Our web administrator is checking on the data provided. Action will be taken if there  
20 are any copyright issues."  
21

22           25.       DataPro received no further response from LG Electronics.

23           26.       On or around September 28, 2012, DataPro wrote to LG Electronics concerning  
24 the status of its investigation, but DataPro received no response.

25           27.       On or around November 5, 2012, DataPro discovered that LG Electronics was  
26 again reproducing, distributing, and displaying substantial material from the DataPro  
27

1 Copyrights without authorization on web pages within its lg.com domain, specifically on the  
2 following URLs: <http://www.lg.com/pa/support/product-help/doc-2124488-en-LGEPS>;  
3 [http://www.lg.com/tn\\_en/support/product-help/CT20218004-CT20218005-2111534](http://www.lg.com/tn_en/support/product-help/CT20218004-CT20218005-2111534);  
4 [http://www.lg.com/tn\\_en/support/product-help/CT20218004-CT20218005-2111520](http://www.lg.com/tn_en/support/product-help/CT20218004-CT20218005-2111520); and  
5 [http://www.lg.com/tn\\_en/support/product-help/CT20218004-CT20218005-2111494](http://www.lg.com/tn_en/support/product-help/CT20218004-CT20218005-2111494).  
6

7 28. DataPro's copyright notices were not present on the URLs identified in  
8 Paragraph #27.

9 29. On or around November 19, 2012, DataPro discovered that, despite its formal  
10 notice of copyright infringement, LG Electronics continued to reproduce, distribute, and  
11 display material from the DataPro Copyrights without authorization on  
12 <http://www.lg.com/my/support/product-help/doc-2121426-en-LGEML>.  
13

14 30. On or around January 24, 2013, DataPro discovered that LG Electronics  
15 continued to reproduce, distribute, and display material from the DataPro Copyrights without  
16 authorization, specifically on the following URLs: [http://www.lg.com/my/support/product-](http://www.lg.com/my/support/product-help/doc-2121426-en-LGEML)  
17 [help/doc-2121426-en-LGEML](http://www.lg.com/my/support/product-help/doc-2121426-en-LGEML); [http://www.lg.com/pa/support/product-help/doc-2124488-](http://www.lg.com/pa/support/product-help/doc-2124488-en-LGEPS)  
18 [en-LGEPS](http://www.lg.com/pa/support/product-help/doc-2124488-en-LGEPS); [http://www.lg.com/tn\\_en/support/product-help/CT20218004-CT20218005-](http://www.lg.com/tn_en/support/product-help/CT20218004-CT20218005-2111534)  
19 [2111534](http://www.lg.com/tn_en/support/product-help/CT20218004-CT20218005-2111534); [http://www.lg.com/tn\\_en/support/product-help/CT20218004-CT20218005-2111520](http://www.lg.com/tn_en/support/product-help/CT20218004-CT20218005-2111520);  
20 and [http://www.lg.com/tn\\_en/support/product-help/CT20218004-CT20218005-2111494](http://www.lg.com/tn_en/support/product-help/CT20218004-CT20218005-2111494).  
21  
22

23 31. On or around February 17, 2013, DataPro discovered that LG Electronics was  
24 reproducing, distributing, and displaying material from the DataPro Copyrights without  
25 authorization on a web page within its lg.com domain, specifically [http://www.lg.com/](http://www.lg.com/levant_en/support/product-help/doc-2117630-en-LGELF)  
26 [levant\\_en/support/product-help/doc-2117630-en-LGELF](http://www.lg.com/levant_en/support/product-help/doc-2117630-en-LGELF).  
27

1           32.       DataPro's copyright notices were not present on the URL identified in  
2 Paragraph #31.

3           33.       On or around April 26, 2013, DataPro sent formal notice of copyright  
4 infringement to LGEUSA.

5           34.       On or around May 20, 2013, DataPro received correspondence from Chang H.  
6 Kim, General (IP) Counsel for LGE, which stated that LG Electronics would "promptly  
7 investigate this matter internally and take appropriate actions, as needed."

8           35.       DataPro did not receive any further communication from Mr. Kim.

9           36.       On or around June 10, 2013, DataPro wrote to Mr. Kim concerning the  
10           infringements.  
11

12           37.       DataPro received no response to its June 10, 2013, correspondence to Mr. Kim.

13           38.       On or around July 31, 2013, DataPro again wrote to LGEUSA concerning the  
14           infringements.  
15

16           39.       On or around August 7, 2013, DataPro discovered that LG Electronics was  
17           reproducing, distributing, and displaying material from the DataPro Copyrights without  
18           authorization on web pages within its lg.com domain, specifically on the following URLs:  
19           http://www.lg.com/tn\_en/support/product-help/CT20218004-CT20218005-2111519 and  
20           http://www.lg.com/dz/support/product-help/doc-2106947-en-LGEAS.  
21

22           40.       DataPro's copyright notices were not present on the URLs identified in  
23           Paragraph #39.  
24

25           41.       On August 12, 2013, DataPro received correspondence from Soonja Bae, Senior  
26           (IP) Counsel for LGE, who stated that LGE had "investigated this matter as soon as we  
27

1 received your April letter” and requested identification of specific URLs “so that we can  
2 investigate this matter to address your concerns.”

3 42. On or around August 15, 2013, DataPro wrote to Ms. Bae concerning the  
4 infringements and requested a conference to discuss resolution.

5 43. DataPro received no response to its August 15, 2013, correspondence.

6 44. On or around August 16, 2013, DataPro discovered that LG Electronics was  
7 reproducing, distributing, and displaying substantial material from the DataPro Copyrights  
8 without authorization on web pages within its lg.com domain, specifically on the following  
9 URLs: [http://www.lg.com/ph/support/ product-help/CT20192008-CT20192009-2122949](http://www.lg.com/ph/support/product-help/CT20192008-CT20192009-2122949);  
10 [http://www.lg.com/hk\\_en/support/ product-help/CT20136004-CT20136005-1352085413550](http://www.lg.com/hk_en/support/product-help/CT20136004-CT20136005-1352085413550);  
11 [http://www.lg.com/africa\\_en/ support/product-help/CT20080004-CT20080005-2201954](http://www.lg.com/africa_en/support/product-help/CT20080004-CT20080005-2201954);  
12 [http://www.lg.com/eg\\_en/ support/product-help/CT20124004-CT20124005-2113043](http://www.lg.com/eg_en/support/product-help/CT20124004-CT20124005-2113043);  
13 [http://www.lg.com/uk/ support/product-help/CT00008405-CT00008442-2132855](http://www.lg.com/uk/support/product-help/CT00008405-CT00008442-2132855);  
14 [http://www.lg.com/ae/support/ product-help/CT20076004-CT20076005-2119901](http://www.lg.com/ae/support/product-help/CT20076004-CT20076005-2119901);  
15 [http://www.lg.com/africa\\_en/support/ product-help/CT20080004-CT20080005-2103899](http://www.lg.com/africa_en/support/product-help/CT20080004-CT20080005-2103899);  
16 [http://www.lg.com/pa\\_en/support/ product-help/CT20273030-CT20273039-2124473](http://www.lg.com/pa_en/support/product-help/CT20273030-CT20273039-2124473);  
17 [http://www.lg.com/pa\\_en/support/ product-help/CT20273030-CT20273037-2124473](http://www.lg.com/pa_en/support/product-help/CT20273030-CT20273037-2124473);  
18 [http://www.lg.com/pa\\_en/support/ product-help/CT20273030-CT20273038-2124473](http://www.lg.com/pa_en/support/product-help/CT20273030-CT20273038-2124473);  
19 [http://www.lg.com/pa\\_en/support/ product-help/CT20273030-CT20273051-2124473](http://www.lg.com/pa_en/support/product-help/CT20273030-CT20273051-2124473);  
20 [http://www.lg.com/eg\\_en/support/ product-help/CT20124004-CT20124005-2113043](http://www.lg.com/eg_en/support/product-help/CT20124004-CT20124005-2113043);  
21 [http://www.lg.com/hk\\_en/support/ product-help/CT20136004-CT20136005-1352085414653](http://www.lg.com/hk_en/support/product-help/CT20136004-CT20136005-1352085414653);  
22 [http://www.lg.com/in/support/ product-help/CT20150004-CT20150005-2116091](http://www.lg.com/in/support/product-help/CT20150004-CT20150005-2116091);  
23  
24  
25  
26  
27



1 [http://www.lg.com/levant\\_en/support/product-help/CT20158004-CT20158005-2117615](http://www.lg.com/levant_en/support/product-help/CT20158004-CT20158005-2117615);

2 <http://www.lg.com/uk/support/product-help/CT00008333-CT00008334-2132855>;

3 <http://www.lg.com/uk/support/product-help/CT00008405-CT00008444-2132855>;

4 <http://www.lg.com/uk/support/product-help/CT00008333-CT00008351-2132855>; and

5 <http://www.lg.com/za/support/product-help/CT20230004-CT20230005-2126759>.

6  
7 45. DataPro's copyright notices were not present on the URLs identified in  
8 Paragraph #44.

9 46. On or around August 22, 2013, DataPro wrote to Ms. Bae concerning the  
10 previous and nineteen (19) newly discovered infringements and requested a conference to  
11 discuss resolution.  
12

13 47. On or around August 22, 2013, and despite having received formal notice of  
14 previous and ongoing copyright infringements, Ms. Bae sent correspondence to DataPro  
15 stating that LGE counsel "may not be available to talk to you by the second week of  
16 September" and that "once [LGE counsel] are available to talk to you, we will contact you."  
17

18 48. On or around August 27, 2013, DataPro again sent correspondence to Ms. Bae  
19 concerning the infringements and requested a conference to discuss resolution.

20 49. On or around August 28, 2013, DataPro received correspondence from Ms. Bae  
21 stating that LGE "will review all of the web pages you have recently cited...and take appropriate  
22 steps" and that "...we will reach out to you should we believe that a call is necessary to move  
23 this matter forward."  
24

25 50. Upon information and belief, LG Electronics, without authorization and with  
26 knowledge of and reckless disregard for DataPro's intellectual property, reproduced,  
27

1 distributed, and displayed substantial material from the DataPro Copyrights in order to sell its  
2 competing products.

3  
4 **FIRST CAUSE OF ACTION—COPYRIGHT INFRINGEMENT OF THE DATAPRO WEB**

5  
6 **PAGES COPYRIGHT**

7       51. DataPro incorporates paragraphs 1 through 50 above, as though fully set forth  
8 herein.

9       52. DataPro holds a valid and exclusive copyright to the work known as the DataPro  
10 Web Pages that is a subject of this action and is evidenced by its copyright registration  
11 certificate.

12  
13       53. As set forth above, without authorization from DataPro and despite copyright  
14 notice on the DataPro Web Pages, LG Electronics willfully copied substantial portions of the  
15 DataPro Web Pages, displayed that copy to the public through its website, and distributed that  
16 copy to its customers and the general public.

17  
18       54. The actions and conduct by LG Electronics as described above infringe upon  
19 DataPro's exclusive rights granted under 17 U.S.C. § 106 to reproduce, display, make derivative  
20 works from, and distribute its copyrighted work to the public.

21       55. Such actions and conduct constitute copyright infringement under 17 U.S.C. §  
22 501.

23  
24       56. As a result of the copyright infringement described above, DataPro is entitled to  
25 relief, including, but not limited to, injunctive relief, actual or statutory damages, statutory  
26 costs and attorney's fees, and prejudgment interest.

**SECOND CAUSE OF ACTION—COPYRIGHT INFRINGEMENT OF THE A  
COMPLETE GUIDE TO THE DIGITAL VIDEO INTERFACE COPYRIGHT**

57. DataPro incorporates paragraphs 1 through 56 above, as though fully set forth herein.

58. DataPro holds a valid and exclusive copyright to the work known as A Complete Guide to the Digital Video Interface that is a subject of this action and is evidenced by its copyright registration certificate.

59. As set forth above, without authorization from DataPro and despite copyright notice, LG Electronics willfully copied substantial portions of A Complete Guide to the Digital Video Interface, displayed that copy to the public through its website, and distributed that copy to its customers and the public.

60. The actions and conduct by LG Electronics as described above infringe upon DataPro's exclusive rights granted under 17 U.S.C. § 106 to reproduce, display, make derivative works from, and distribute its copyrighted work to the public.

61. Such actions and conduct constitute copyright infringement under 17 U.S.C. § 501.

62. As a result of the copyright infringement described above, DataPro is entitled to relief, including, but not limited to, injunctive relief, actual or statutory damages, statutory costs and attorney's fees, and prejudgment interest.

**THIRD CAUSE OF ACTION—REMOVAL OR ALTERATION OF COPYRIGHT**

**MANAGEMENT INFORMATION FOR THE DATAPRO WEB PAGES COPYRIGHT**

63. DataPro incorporates paragraphs 1 through 62 above, as though fully set forth herein.

64. Although DataPro conveyed Copyright Management Information (“CMI”) in connection with its own copies of the DataPro Web Pages, LG Electronics intentionally removed or altered this CMI from LG Electronics’ copies of the DataPro Web Pages without authority of DataPro.

65. LG Electronics distributed copies of the CMI to its customers and the public knowing that the CMI had been removed or altered without authority of DataPro.

66. LG Electronics distributed copies of the DataPro Web Pages to its customers and the public knowing that the CMI had been removed or altered without authority of DataPro.

67. LG Electronics took the actions alleged in Paragraphs 64–66 knowing, or having reasonable grounds to know, that its actions will induce, enable, facilitate or conceal infringement.

68. Such actions and conduct constitute the removal or alteration of copyright management information under 17 U.S.C. § 1202(b).

69. As a result of the removal or alteration of CMI as described above, DataPro is entitled to relief, including, but not limited to, injunctive relief, actual or statutory damages, statutory costs and attorney’s fees, and prejudgment interest.

**FOURTH CAUSE OF ACTION— REMOVAL OR ALTERATION OF COPYRIGHT**

**MANAGEMENT INFORMATION FOR THE A COMPLETE GUIDE TO THE DIGITAL**

**VIDEO INTERFACE COPYRIGHT**

70. DataPro incorporates paragraphs 1 through 69 above, as though fully set forth herein.

71. Although DataPro conveyed Copyright Management Information (“CMI”) in connection with its own copies of A Complete Guide to the Digital Video Interface, LG Electronics intentionally removed or altered this CMI from LG Electronics’ copies of the A Complete Guide to the Digital Video Interface without authority of DataPro.

72. LG Electronics distributed copies of the CMI to its customers and the public knowing that the CMI had been removed or altered without authority of DataPro.

73. LG Electronics distributed copies of A Complete Guide to the Digital Video Interface to its customers and the public knowing that the CMI had been removed or altered without authority of DataPro.

74. LG Electronics took the actions alleged in paragraphs 71–73 knowing, or having reasonable grounds to know, that its actions will induce, enable, facilitate or conceal infringement.

75. Such actions and conduct constitute the removal or alteration of copyright management information under 17 U.S.C. § 1202(b).

76. As a result of the removal or alteration of CMI as described above, DataPro is entitled to relief, including, but not limited to, injunctive relief, actual or statutory damages, statutory costs and attorney’s fees, and prejudgment interest.

**FIFTH CAUSE OF ACTION—FALSIFICATION OF COPYRIGHT MANAGEMENT**

**INFORMATION FOR THE DATAPRO WEB PAGES COPYRIGHT**

77. DataPro incorporates paragraphs 1 through 76 above, as though fully set forth herein.

78. During LG Electronics' use of substantial portions of the DataPro Web Pages Copyright, LG Electronics' Terms, available at <http://www.lgcorp.com/utility/terms.dev>, claimed that "[c]opyright in the pages and in the screens displaying the pages, and in the information and material therein and in their arrangement, is owned by LG unless otherwise indicated."

79. LG Electronics did not identify or otherwise indicate DataPro as the owner of the intellectual property at issue.

80. Upon information and belief, during LG Electronics' use of substantial portions of the DataPro Web Pages Copyright, the LG Electronics' web pages <http://lgknowledgebase.com/kb/index.php?View=entry&EntryID=2922>; <http://lgknowledgebase.com/kb/index.php?View=entry&EntryID=2923>; <http://lgknowledgebase.com/kb/index.php?View=entry&EntryID=2925>; <http://lgknowledgebase.com/kb/index.php?View=entry&EntryID=2926>; and <http://lgknowledgebase.com/kb/index.php?View=entry&EntryID=2930> displayed the copyright notice "Copyright 2009 LG Electronics. All Rights Reserved."

81. Upon information and belief, during LG Electronics' use of substantial portions of the DataPro Web Pages Copyright, the LG Electronics' web pages

1 <http://www.lg.com/my/support/product-help/doc-2121426-en-LGEML;>  
2 <http://www.lg.com/pa/support/product-help/doc-2124488-en-LGEPs;>  
3 [http://www.lg.com/tn\\_en/support/product-help/CT20218004-CT20218005-2111534;](http://www.lg.com/tn_en/support/product-help/CT20218004-CT20218005-2111534;)  
4 [http://www.lg.com/tn\\_en/support/product-help/CT20218004-CT20218005-2111520;](http://www.lg.com/tn_en/support/product-help/CT20218004-CT20218005-2111520;)  
5 [http://www.lg.com/tn\\_en/support/product-help/CT20218004-CT20218005-2111494;](http://www.lg.com/tn_en/support/product-help/CT20218004-CT20218005-2111494;)  
6 [http://www.lg.com/levant\\_en/support/product-help/doc-2117630-en-LGELF;](http://www.lg.com/levant_en/support/product-help/doc-2117630-en-LGELF;)  
7 [http://www.lg.com/tn\\_en/support/product-help/CT20218004-CT20218005-2111519](http://www.lg.com/tn_en/support/product-help/CT20218004-CT20218005-2111519) and  
8 <http://www.lg.com/dz/support/product-help/doc-2106947-en-LGEAS;>  
9 <http://www.lg.com/ph/support/product-help/CT20192008-CT20192009-2122949;>  
10 [http://www.lg.com/hk\\_en/support/product-help/CT20136004-CT20136005-1352085413550;](http://www.lg.com/hk_en/support/product-help/CT20136004-CT20136005-1352085413550;)  
11 [http://www.lg.com/africa\\_en/support/product-help/CT20080004-CT20080005-2201954;](http://www.lg.com/africa_en/support/product-help/CT20080004-CT20080005-2201954;)  
12 [http://www.lg.com/eg\\_en/support/product-help/CT20124004-CT20124005-2113043;](http://www.lg.com/eg_en/support/product-help/CT20124004-CT20124005-2113043;)  
13 <http://www.lg.com/uk/support/product-help/CT00008405-CT00008442-2132855;>  
14 <http://www.lg.com/ae/support/product-help/CT20076004-CT20076005-2119901;>  
15 [http://www.lg.com/africa\\_en/support/product-help/CT20080004-CT20080005-2103899;](http://www.lg.com/africa_en/support/product-help/CT20080004-CT20080005-2103899;)  
16 [http://www.lg.com/pa\\_en/support/product-help/CT20273030-CT20273039-2124473;](http://www.lg.com/pa_en/support/product-help/CT20273030-CT20273039-2124473;)  
17 [http://www.lg.com/pa\\_en/support/product-help/CT20273030-CT20273037-2124473;](http://www.lg.com/pa_en/support/product-help/CT20273030-CT20273037-2124473;)  
18 [http://www.lg.com/pa\\_en/support/product-help/CT20273030-CT20273038-2124473;](http://www.lg.com/pa_en/support/product-help/CT20273030-CT20273038-2124473;)  
19 [http://www.lg.com/pa\\_en/support/product-help/CT20273030-CT20273051-2124473;](http://www.lg.com/pa_en/support/product-help/CT20273030-CT20273051-2124473;)  
20 [http://www.lg.com/eg\\_en/support/product-help/CT20124004-CT20124005-2113043;](http://www.lg.com/eg_en/support/product-help/CT20124004-CT20124005-2113043;)  
21 [http://www.lg.com/hk\\_en/support/product-help/CT20136004-CT20136005-1352085414653;](http://www.lg.com/hk_en/support/product-help/CT20136004-CT20136005-1352085414653;)  
22 <http://www.lg.com/in/support/product-help/CT20150004-CT20150005-2116091;>  
23  
24  
25  
26  
27

1 [http://www.lg.com/levant\\_en/support/product-help/CT20158004-CT20158005-2117615](http://www.lg.com/levant_en/support/product-help/CT20158004-CT20158005-2117615);  
 2 <http://www.lg.com/uk/support/product-help/CT00008333-CT00008334-2132855>;  
 3 <http://www.lg.com/uk/support/product-help/CT00008405-CT00008444-2132855>;  
 4 <http://www.lg.com/uk/support/product-help/CT00008333-CT00008351-2132855>; and  
 5 <http://www.lg.com/za/support/product-help/CT20230004-CT20230005-2126759> displayed  
 6 the copyright notice “Copyright 2013 LG Electronics. All Rights Reserved.”  
 7

8 82. Upon information and belief, LG Electronics distributed false CMI to its  
 9 customers and the public.

10 83. By placing its own copyright notice on the unauthorized copies of the DataPro  
 11 Web Pages that LG Electronics displayed on its web pages, LG Electronics knowingly provided  
 12 and distributed to its customers false copyright management information with the intent to  
 13 enable, facilitate, or conceal infringement.  
 14

15 84. Such actions and conduct constitute the falsification of copyright management  
 16 information under 17 U.S.C. § 1202(a).  
 17

18 85. As a result of the falsification of copyright management information as  
 19 described above, DataPro is entitled to relief, including, but not limited to, injunctive relief,  
 20 actual or statutory damages, statutory costs and attorney’s fees, and prejudgment interest.  
 21

22 **SIXTH CAUSE OF ACTION—FALSIFICATION OF COPYRIGHT MANAGEMENT**  
 23 **INFORMATION FOR THE A COMPLETE GUIDE TO THE DIGITAL VIDEO**  
 24 **INTERFACE COPYRIGHT**  
 25  
 26  
 27



1           86.       DataPro incorporates paragraphs 1 through 85 above, as though fully set forth  
2 herein.

3           87.       During LG Electronics' own use of substantial portions of the A Complete  
4 Guide to the Digital Interface, LG Electronics' Terms, available at  
5 <http://www.lgcorp.com/utility/terms.dev>, claimed that "[c]opyright in the pages and in the  
6 screens displaying the pages, and in the information and material therein and in their  
7 arrangement, is owned by LG unless otherwise indicated."

8           88.       LG Electronics did not identify or otherwise indicate DataPro as the owner of  
9 the intellectual property at issue.  
10

11           89.       Upon information and belief, during LG Electronics' use of substantial portions  
12 of the A Complete Guide to the Digital Interface, the LG Electronics' web pages  
13 <http://lgknowledgebase.com/kb/index.php?View=entry&EntryID=2922>; <http://lgknowledgebase.com/kb/index.php?View=entry&EntryID=2923>; <http://lgknowledgebase.com/kb/index.php?View=entry&EntryID=2925>; <http://lgknowledgebase.com/kb/index.php?View=entry&EntryID=2926>; and <http://lgknowledgebase.com/kb/index.php?View=entry&EntryID=2930> displayed the copyright notice "Copyright 2009 LG Electronics.  
14  
15  
16  
17  
18  
19  
20 All Rights Reserved."

21           90.       Upon information and belief, during LG Electronics' use of substantial portions  
22 of the A Complete Guide to the Digital Interface, the LG Electronics' web pages  
23 <http://www.lg.com/my/support/product-help/doc-2121426-en-LGEML>;  
24 <http://www.lg.com/pa/support/product-help/doc-2124488-en-LGEPs>;  
25 [http://www.lg.com/tn\\_en/support/product-help/CT20218004-CT20218005-2111534](http://www.lg.com/tn_en/support/product-help/CT20218004-CT20218005-2111534);  
26  
27

1 [http://www.lg.com/tn\\_en/support/product-help/CT20218004-CT20218005-2111520](http://www.lg.com/tn_en/support/product-help/CT20218004-CT20218005-2111520);  
2 [http://www.lg.com/tn\\_en/support/product-help/CT20218004-CT20218005-2111494](http://www.lg.com/tn_en/support/product-help/CT20218004-CT20218005-2111494);  
3 [http://www.lg.com/levant\\_en/support/product-help/doc-2117630-en-LGELF](http://www.lg.com/levant_en/support/product-help/doc-2117630-en-LGELF);  
4 [http://www.lg.com/tn\\_en/support/product-help/CT20218004-CT20218005-2111519](http://www.lg.com/tn_en/support/product-help/CT20218004-CT20218005-2111519) and  
5 <http://www.lg.com/dz/support/product-help/doc-2106947-en-LGEAS>;  
6  
7 <http://www.lg.com/ph/support/product-help/CT20192008-CT20192009-2122949>;  
8 [http://www.lg.com/hk\\_en/support/product-help/CT20136004-CT20136005-1352085413550](http://www.lg.com/hk_en/support/product-help/CT20136004-CT20136005-1352085413550);  
9 [http://www.lg.com/africa\\_en/support/product-help/CT20080004-CT20080005-2201954](http://www.lg.com/africa_en/support/product-help/CT20080004-CT20080005-2201954);  
10 [http://www.lg.com/eg\\_en/support/product-help/CT20124004-CT20124005-2113043](http://www.lg.com/eg_en/support/product-help/CT20124004-CT20124005-2113043);  
11 <http://www.lg.com/uk/support/product-help/CT00008405-CT00008442-2132855>;  
12 <http://www.lg.com/ae/support/product-help/CT20076004-CT20076005-2119901>;  
13 [http://www.lg.com/africa\\_en/support/product-help/CT20080004-CT20080005-2103899](http://www.lg.com/africa_en/support/product-help/CT20080004-CT20080005-2103899);  
14 [http://www.lg.com/pa\\_en/support/product-help/CT20273030-CT20273039-2124473](http://www.lg.com/pa_en/support/product-help/CT20273030-CT20273039-2124473);  
15 [http://www.lg.com/pa\\_en/support/product-help/CT20273030-CT20273037-2124473](http://www.lg.com/pa_en/support/product-help/CT20273030-CT20273037-2124473);  
16 [http://www.lg.com/pa\\_en/support/product-help/CT20273030-CT20273038-2124473](http://www.lg.com/pa_en/support/product-help/CT20273030-CT20273038-2124473);  
17 [http://www.lg.com/pa\\_en/support/product-help/CT20273030-CT20273051-2124473](http://www.lg.com/pa_en/support/product-help/CT20273030-CT20273051-2124473);  
18 [http://www.lg.com/eg\\_en/support/product-help/CT20124004-CT20124005-2113043](http://www.lg.com/eg_en/support/product-help/CT20124004-CT20124005-2113043);  
19 [http://www.lg.com/hk\\_en/support/product-help/CT20136004-CT20136005-1352085414653](http://www.lg.com/hk_en/support/product-help/CT20136004-CT20136005-1352085414653);  
20 <http://www.lg.com/in/support/product-help/CT20150004-CT20150005-2116091>;  
21 [http://www.lg.com/levant\\_en/support/product-help/CT20158004-CT20158005-2117615](http://www.lg.com/levant_en/support/product-help/CT20158004-CT20158005-2117615);  
22 <http://www.lg.com/uk/support/product-help/CT00008333-CT00008334-2132855>;  
23 <http://www.lg.com/uk/support/product-help/CT00008405-CT00008444-2132855>;  
24  
25  
26  
27

1 <http://www.lg.com/uk/support/product-help/CT00008333-CT00008351-2132855>; and  
2 <http://www.lg.com/za/support/product-help/CT20230004-CT20230005-2126759> displayed  
3 the copyright notice “Copyright 2013 LG Electronics. All Rights Reserved.”

4 91. Upon information and belief, LG Electronics distributed false CMI to its  
5 customers and the public.  
6

7 92. By placing its own copyright notice on the unauthorized copies of the DataPro  
8 Web Pages that LG Electronics displayed on its web pages, LG Electronics knowingly provided  
9 and distributed to its customers false copyright management information with the intent to  
10 enable, facilitate, or conceal infringement.  
11

12 93. Such actions and conduct constitute the falsification of copyright management  
13 information under 17 U.S.C. § 1202(a).

14 94. As a result of the falsification of copyright management information as  
15 described above, DataPro is entitled to relief, including, but not limited to, injunctive relief,  
16 actual or statutory damages, statutory costs and attorney’s fees, and prejudgment interest.  
17

18  
19 **PRAYER FOR RELIEF**

20 WHEREFORE, DataPro prays for the following relief:

21 A. On the First Cause of Action, for an award of Defendants’ profits and for actual  
22 damages in such amount as may be found, or for statutory damages of not less than \$750 or  
23 more than \$30,000 per copy, pursuant to 17 U.S.C. § 504(c)(1). Alternatively, for an award of up  
24 to \$150,000 upon a finding of willful infringement pursuant to 17 U.S.C. § 504(c)(2). And for an  
25 order permanently enjoining Defendants from infringing Plaintiff’s copyrighted website  
26  
27

1 pursuant to 17 U.S.C. § 502 and for an award of costs and attorney's fees pursuant to 17 U.S.C. §  
2 505.

3 B. On the Second Cause of Action, for an award of Defendants' profits and for  
4 actual damages in such amount as may be found, or for statutory damages of not less than \$750  
5 or more than \$30,000 per copy pursuant to 17 U.S.C. § 504(c)(1). Alternatively, for an award of  
6 up to \$150,000 upon a finding of willful infringement pursuant to 17 U.S.C. § 504(c)(2). And for  
7 an order permanently enjoining Defendants from infringing Plaintiff's copyrighted material  
8 pursuant to 17 U.S.C. § 502 and for an award of costs and attorney's fees pursuant to 17 U.S.C. §  
9 505.  
10

11 C. On the Third Cause of Action, for an award of Defendants' profits and for  
12 actual damages in such amount as may be found, or for statutory damages of not less than  
13 \$2,500 or more than \$25,000 per violation pursuant to 17 U.S.C. § 1203(c)(3)(b). And for an  
14 order permanently enjoining Defendants from removing or altering Plaintiff's copyright  
15 management information pursuant to 17 U.S.C. § 1203(b)(1) and for an award of costs and  
16 attorney's fees pursuant to 17 U.S.C. §§ 1203(b)(4)-(5).  
17

18 D. On the Fourth Cause of Action, for an award of Defendants' profits and for  
19 actual damages in such amount as may be found, or for statutory damages of not less than  
20 \$2,500 or more than \$25,000 per violation pursuant to 17 U.S.C. § 1203(c)(3)(b). And for an  
21 order permanently enjoining Defendants from removing or altering Plaintiff's copyright  
22 management information pursuant to 17 U.S.C. § 1203(b)(1) and for an award of costs and  
23 attorney's fees pursuant to 17 U.S.C. §§ 1203(b)(4)-(5).  
24  
25  
26  
27

1 E. On the Fifth Cause of Action, for an award of Defendants' profits and for actual  
2 damages in such amount as may be found, or for statutory damages of not less than \$2,500 or  
3 more than \$25,000 per violation pursuant to 17 U.S.C. § 1203(c)(3)(b). And for an order  
4 permanently enjoining Defendants from falsifying copyright management information  
5 pursuant to 17 U.S.C. § 1203(b)(1) and for an award of costs and attorney's fees pursuant to 17  
6 U.S.C. §§ 1203(b)(4)-(5).  
7

8 F. On the Sixth Cause of Action, for an award of Defendants' profits and for actual  
9 damages in such amount as may be found, or for statutory damages of not less than \$2,500 or  
10 more than \$25,000 per violation pursuant to 17 U.S.C. § 1203(c)(3)(b). And for an order  
11 permanently enjoining Defendants from falsifying copyright management information  
12 pursuant to 17 U.S.C. § 1203(b)(1) and for an award of costs and attorney's fees pursuant to 17  
13 U.S.C. §§ 1203(b)(4)-(5).  
14

15 G. For prejudgment interest on the amount of the award to Plaintiff;

16 H. And for such other and further relief as the Court deems equitable, proper, and  
17 just.  
18  
19  
20  
21  
22

23 [signature page follows]

24 ///

25 ///

26 ///

27

1 DATED: September 5, 2013

2  
3 MELTZER LAW

4 By: s/ Eric S. Meltzer

5 Eric S. Meltzer, WSBA #40203

6 Attorney for DataPro International Inc.

7 T: 206-200-7398

8 F: 617-863-7428

9 E: eric@meltzergrant.com

EXHIBIT A

COPYRIGHT CERTIFICATES TXu 1-596-528 AND TXu 1-647-313

## Certificate of Registration



This Certificate issued under the seal of the Copyright Office in accordance with title 17, *United States Code*, attests that registration has been made for the work identified below. The information on this certificate has been made a part of the Copyright Office records.

*Maria A. Pallante*

Acting Register of Copyrights, United States of America

**Registration Number:**

**TXu 1-596-528**

**Effective date of  
registration:**

October 24, 2008

**Title** \_\_\_\_\_

**Title of Work:** DataPro Web Pages

**Completion/ Publication** \_\_\_\_\_

**Year of Completion:** 2008

**Author** \_\_\_\_\_

■ **Author:** DataPro International Inc.

**Author Created:** text, photograph(s), compilation, editing, artwork

**Work made for hire:** Yes

**Citizen of:** United States

**Domiciled in:** United States

**Copyright claimant** \_\_\_\_\_

**Copyright Claimant:** DataPro International Inc.

1144 NW 52nd St., Seattle, WA, 98107, United States

**Rights and Permissions** \_\_\_\_\_

**Organization Name:** DataPro International inc.

**Name:** To whom it may concern

**Email:** info@datapro.net

**Telephone:** 206-782-5259

**Address:** 1144 NW 52nd Street

Seattle, WA 98107 United States

**Certification** \_\_\_\_\_

**Name:** Michael Williams

**Date:** October 23, 2008



**Copyright Office notes:** Regarding author information: Original application gave the author created statement as: text, photograph(s), compilation, editing, computer program, artwork; deposit consists of text, photograph(s), compilation, editing, artwork only

# Certificate of Registration



This Certificate issued under the seal of the Copyright Office in accordance with title 17, *United States Code*, attests that registration has been made for the work identified below. The information on this certificate has been made a part of the Copyright Office records.

*Marybeth Peters*

Register of Copyrights, United States of America

Registration Number  
**TXu 1-647-313**

Effective date of  
registration:

February 18, 2008

Title \_\_\_\_\_

**Title of Work:** All About DVI

**Previous or Alternative Title:** A Complete Guide to the Digital Video Interface

Completion/ Publication \_\_\_\_\_

**Year of Completion:** 2003

Author \_\_\_\_\_

■ **Author:** DataPro International Inc., employer for hire of Anthony van Winkle

**Author Created:** Entire Text

**Work made for hire:** Yes

**Citizen of:** United States

**Year Born:** 1984

**Anonymous:** No

**Pseudonymous:** No

Copyright claimant \_\_\_\_\_

**Copyright Claimant:** DataPro International Inc

1144 NW 52nd Street, Seattle, WA, 98107

Limitation of copyright claim \_\_\_\_\_

**Previously registered:** No

Certification \_\_\_\_\_

**Name:** Blake Sherman

**Date:** January 30, 2008

EXHIBIT B  
REPRESENTATIVE SAMPLE OF DATAPRO WEB PAGES

Product Search


Quick-Link Catalog

[Custom Cables](#)  
[Custom Panels](#)
[Custom Wall Plates](#)  
[Stock Wall Plates](#)
[Panel-Mount Cables](#)
[USB & FireWire](#)  
[Video Cables](#)  
[Video Electronics](#)  
[Keyboard & Mouse](#)  
[Audio Cables](#)
[Networking](#)  
[Fiber Optic](#)  
[Wireless Products](#)
[SCSI](#)  
[Serial & Parallel](#)  
[Manual Switches](#)  
[Other Data Cables](#)
[Power Cables](#)  
[Server Racks](#)
[Clearance & Specials](#)

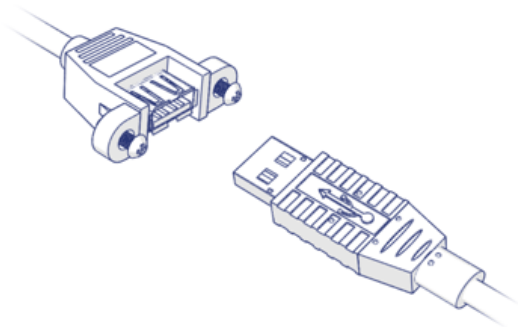
## Custom Wall Plates & Panel-Mount Cables

DataPro Tech Info &gt; Custom Wall Plates &amp; Panel-Mount Cables


### A Complete Design and Installation Guide

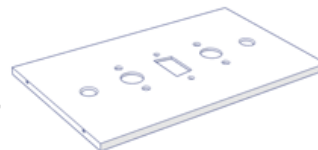
- [Why Use Wall Plates?](#)
- [What Are Panel-Mount Cables?](#)
- [Can I Get Custom Plates Made?](#)
- [Which Connectors Are Available?](#)
- [Can I Use Keystone Connectors?](#)
- [How Do I Order Custom Plates?](#)
- [How Much Do Custom Plates Cost?](#)
- [How Soon Will My Order Ship?](#)
- [Installing Plates and Cables](#)



### WHY USE WALL PLATES?

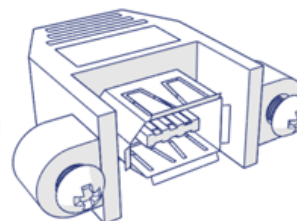
Whether you need VGA ports for lobby displays or overhead projectors, USB ports for special computer enclosures, Ethernet ports for clean networking, or anything else, DataPro can cut a wall plate with just the right configuration for your application. We offer total solutions for medical and industrial applications, schools, conference rooms, home theaters, and more.

DataPro International is pleased to offer the [widest selection available of stock and custom-built wall plates](#) for mounting your computer cables in walls, floors, ceilings, decks, tables, and anywhere else. Our plates are cut with high-durability plastic or metal, for a sturdy and attractive wiring solution. Avoid unsightly holes and cumbersome conduit enclosures by mounting your cabling in a DataPro face plate.



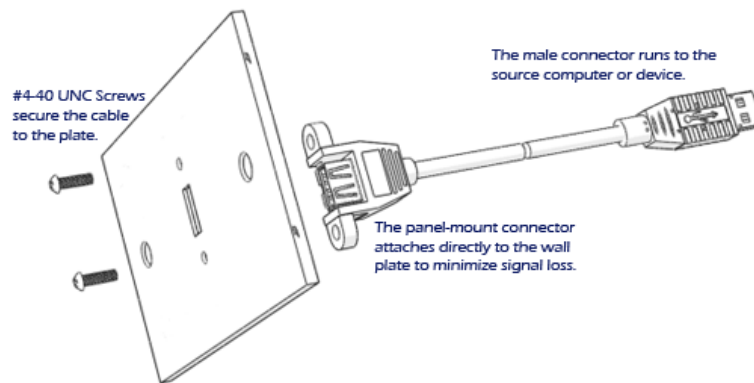
### WHAT ARE PANEL-MOUNT CABLES?

For additional convenience, we stock a [wide variety of panel-mount cables](#) for each of our connectors. You can avoid messy cord bunches and maintain cost efficiency by ordering the cables you need in the lengths that work for you. Or, for those special situations, we can custom-build most any cable needed to complete your run.



The advantage of our panelmount cables is that they have molded hoods with mounting screws, so the cable can attach directly to the face plate without splices or soldering. This saves you the work of having to do on-site termination, and improves signal strength and quality by avoiding couplers and pass-through connectors. We strongly discourage the use of any pass-through connections, which is why we

Custom Wall Plates & Panel Mountable Connectors  
discourage the use of any pass-through connections, which is why we do not offer plates with pre-installed ports.



### **CAN I GET CUSTOM PLATES MADE?**

If the plate you are looking for is not a stock item, we can design and cut one to match your unique needs. Our on-site machine shop produces high-quality plates with great turnaround and competitive pricing. See our [custom wall plate page](#) for more information.

Available in dozens of sizes and materials, we can mix and match any combination of ports, depending on how they fit, so you can make the most efficient use of your space. We also offer 'Decora' style face plate

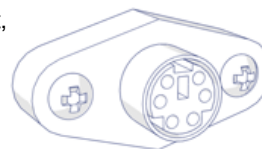
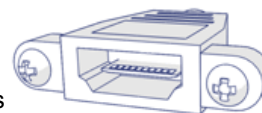
inserts that can be custom-cut with whatever ports you need, and then fitted with a standard decora mountable plate. While they do offer much less space than independent plates, they can be easily installed into an existing multi-plate panel.

If you would like to design your own plate, we would be happy to fabricate it for you. Send us a drawing or connector list (from the selection below), and we will provide you with pricing and lead time.

### **WHICH CONNECTORS ARE AVAILABLE?**

Stock and custom plates are available with any of the following connectors:

- **HDMI** - for new high-definition digital video and audio
- **DVI** - for digital LCD screens, plasma televisions, and other flat-panel displays
- **VGA** - for analog CRT monitors, projectors, and some LCD screens
- **USB** - for all high-speed peripherals, in both 'A' type and 'B' type
- **IEEE-1394** - for all FireWire (iLink) cameras, camcorders, and other devices
- **PS2** - for PC keyboards and mice, as well as many barcode scanners
- **CAT5** - for Ethernet networking, internet, and phone systems
- **DB25** - for 25-pin parallel devices, namely LPT printers
- **DB09** - for 9-pin serial devices, including GPS systems
- **BNC** - for 802.11 antenna cables, composite video, and older networks
- **F-Type** - for coax wire from cable TV or broadband
- **RCA** - one for composite video, two for stereo audio, or three for A/V or component
- **S-Video** - for TV displays from VCRs, DVDs, and some graphics cards

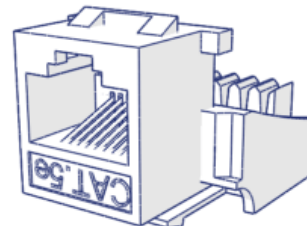


- **3.5mm** - for audio signals (i.e. headphones) in mono, stereo, or quadraphonic

### **CAN I USE KEYSTONE CONNECTORS?**

For an easy, snap-in connection, we offer a variety of Keystone-type connectors in female/female splices that instantly click into a Keystone plate. The plugs we have in stock are:

- PS/2 Keyboard/Mouse
- S-Video (SVHS)
- F-Type Coax (for TV)
- BNC
- RCA (in various colors)
- RJ11 (telephone)
- CAT5e (as pass-through or punch-down)
- CAT6 (as pass-through or punch-down)



Many connectors, including USB and VGA, are too large to install via Keystone, and must be mounted in their own cutout.

### **HOW DO I ORDER CUSTOM PLATES?**

You can now build your own custom plate on our website with our easy-to-use [Custom Wallplate Designer](#). Simply select a plate style, add your holes, and then add cables and couplers. When finished, add the plate and other products to your shopping cart with a single click.

The Plate Designer utility does not cover every possible plate we can build. If you cannot design your ideal plate in Plate Designer, please [contact us for a quote](#) and we will happily assist you.

### **HOW MUCH DO CUSTOM PLATES COST?**

While particularly complicated or unique plates can only be quoted on a case-by-case basis, standard cutouts can be custom-configured with a fairly regular pricing schedule. The following reflects the base cost of the plate material, plus \$1.00 for every cutout:

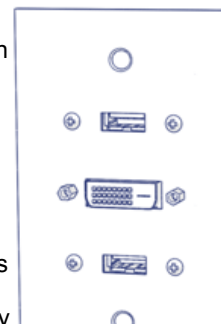
	Plastic	Aluminum
1 Gang	\$14.00	\$16.00
2 Gang	\$18.00	\$20.00
Horizontal	N/A	\$20.00

For example, a 1-Gang plastic plate with a VGA and two DVI cutouts would cost \$17.00 (\$14.00 + \$1.00 x3), and a horizontal plate with two HDMI cutouts would cost \$22.00 (\$20.00 + \$1.00 x2).

### **HOW SOON WILL MY ORDER SHIP?**

For the most common types of cable runs, including USB, VGA, HDMI, and PS2, we stock dozens of different cable and plate configurations for the utmost in flexibility and on-demand solutions. Because we keep stock of so many lengths and styles, same-day shipping is available on most of our runs. If the plates and cables you need are in stock, your order will most likely ship the same or the next day.

Depending on the size of your custom order, we generally offer turnaround of specially-built cables (less than 10 pieces) in 1 to 2 days and custom-cut plates (less than 250 pieces) in 0 to 2 days. Larger orders may



require more time, depending on the quantity and diversity of the products. We encourage you to order earlier rather than later, as high-priority turnarounds may incur rush fees.

---

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EXHIBIT C

A COMPLETE GUIDE TO THE DIGITAL VIDEO INTERFACE



Product Search

Search

Quick-Link Catalog

Custom Cables  
Custom Panels

Custom Wall Plates  
Stock Wall Plates

Panel-Mount Cables

USB & FireWire  
Video Cables  
Video Electronics  
Keyboard & Mouse  
Audio Cables

Networking  
Fiber Optic  
Wireless Products

SCSI  
Serial & Parallel  
Manual Switches  
Other Data Cables

Power Cables  
Server Racks

Clearance &amp; Specials

## All About DVI

DataPro Tech Info &gt; All About DVI

Search

### A Complete Guide to the Digital Video Interface

- [What is DVI?](#)
- [What are the DVI Formats?](#)
- [What are single and dual links?](#)
- [How far does DVI go?](#)
- [How do I know which cable to use?](#)
- [How to recognize a DVI Cable](#)
- [List of DataPro DVI Products](#)



Not sure what cable you need?  
We have a DVI cable guide!

### WHAT IS DVI ?

DVI stands for (D)igital (V)ideo (I)nterface.

DVI is a popular form of video interface technology made to maximize the quality of flat panel LCD monitors and modern video graphics cards. It was a replacement for the short-lived P&D Plug & Display standard, and a step up from the digital-only DFP format for older flat panels. DVI cables are very popular with video card manufacturers, and most cards nowadays include one or two DVI output ports.

In addition to being used as the standard computer interface, the DVI standard was, for a short while, the digital transfer method of choice for HDTVs and other high-end video displays for TV, movies, and DVDs. Likewise, even a few top-end DVD players have featured DVI outputs in addition to the high-quality analog Component Video. The digital market has now settled on the [HDMI interface](#) for high-definition media delivery, and DVI more exclusive to the computer market.

### WHAT ARE THE DVI FORMATS ?

There are three types of DVI connections: DVI-Digital, DVI-Analog, and DVI-Integrated

#### **DVI-D - True Digital Video**



DataPro

If you are connecting a DVI computer to a DVI monitor, **this is the cable you want.**

*DVI-D cables are used for direct digital connections between source video (namely, video cards) and LCD monitors. This provides a faster, higher-quality image than with analog, due to the nature of the digital format. All video cards initially produce a digital video signal, which is converted into analog at the VGA output. The analog signal travels to the monitor and is re-converted to a digital signal. DVI-D eliminates the analog conversion process and improves the connection between source and display.*

**DVI-A - High-Res Analog**

If you are connecting a DVI computer to a VGA monitor, **this is the cable you want.**

DVI-A are used to carry a DVI signal to an analog display, such as a CRT monitor or budget LCD. The most common use of DVI-A is connecting to a VGA device, since DVI-A and VGA carry the same signal. There is some quality loss involved in the digital to analog conversion, which is why a digital signal is recommended whenever possible.

[see all DVI-A cables](#)

**DVI-I - The Best of Both Worlds**

DVI-I cables are integrated cables which are capable of transmitting either a digital-to-digital signal or an analog-to-analog signal. This makes it a more versatile cable, being usable in either digital or analog situations.

Like any other format, DVI digital and analog formats are non-interchangeable. This means that a DVI-D cable will not work on an analog system, nor a DVI-A on a digital system. To connect an analog source to a digital display, you'll need a [VGA to DVI-D electronic convertor](#). To connect a digital output to an analog monitor, you'll need to use a DVI-D to VGA convertor (currently unavailable).

[see all DVI-I cables](#)

**WHAT ARE SINGLE AND DUAL LINKS ?**

The Digital formats are available in DVI-D [Single-Link](#) and [Dual-Link](#) as well as DVI-I Single-Link and [Dual-Link](#) format connectors. These DVI cables send information using a digital information format called TMDS (transition minimized differential signaling). Single link cables use one TMDS 165Mhz transmitter, while dual links use two. The dual link DVI pins effectively double the power of transmission and provide an increase of speed and signal quality; i.e. a DVI single link 60-Hz LCD can display a resolution of 1920 x 1200, while a DVI dual link can display a resolution of 2560 x 1600.

**HOW FAR IS THE DVI MAXIMUM LENGTH?**

The official DVI specification mandates that all DVI equipment must maintain a signal at 5 meters (16 feet) in length. But many manufacturers are putting out much stronger cards and bigger monitors, so the maximum length possible is never exact.

Although the mandated DVI spec is 5 meters, we do carry cables up to 25 feet, and have successfully extended them even longer than that (although results do vary depending on hardware). For guaranteed signal quality on long runs, you should consider using a [powered DVI signal booster](#).

There is a common misconception regarding digital video cables, which is the belief that an "all digital" signal is an either-or result: either the cable works, or it doesn't. In reality, while there is no signal degradation in digital video like there is with analog, cable quality and length can make a difference in your picture.

When a DVI run is unstable, you may see artifacts and "sparkling" pixels on your display; further degradation tends to flicker out or shake, and the ultimate sign of loss is a blank display. In-house tests on varying equipment have produced strong signals up to 9 and 10 meters long. Tests at 12 meters generally resulted in signal noise and an unusable image on the display, and anything longer rendered no image at all.

Keep in mind that when using DVI-I cables at extensive lengths, you may not be seeing a digitally-clear image on your screen. Because analog has a much longer run, your display may auto-switch once the digital signal is too weak. For this reason, long runs are best done with VGA (for analog) or HDMI (for digital). If you have no option other than DVI, make sure you're getting the best image by using DVI-D cables and verifying that your display is set to digital input.

## HOW DO I KNOW WHICH CABLE TO USE?

Determining which type of DVI cable to use for your products is critical in getting the right cable the first time. Check both of the female DVI plugs to determine what signals they are compatible with.

- If one or both connections are DVI-D, you need a [DVI-D cable](#).
- If one or both connections are DVI-A, you need a [DVI-A cable](#).
- If one connection is DVI and the other is VGA, **and** the DVI is analog-compatible, you need a [DVI to VGA cable](#) or a [DVI/VGA adaptor](#).
- If both connections are DVI-I, you may use any DVI cable, but a [DVI-I cable](#) is recommended.
- If one connection is analog and the other connection is digital, there is no way to connect them with a single cable. You'll have to use an electronic converter box, such as our [analog VGA to digital DVI/HDMI converter](#).

If you still have questions, look at our [DVI cable guide](#) for an easy-to-use chart to help you find the right cable for you.

## HOW TO RECOGNIZE A DVI CABLE

There are two variables in every DVI connector, and each represents one characteristic.

The flat pin on one side denotes whether the cable is digital or analog:

- A flat pin with four surrounding pins is either DVI-I or DVI-A
- A flat pin alone denotes DVI-D

The pinsets vary depending on whether the cable is single-link, dual-link, or analog:

- Two separated 9-pin sets (rows of 6) for a single-link cable
- A solid 24-pin set (rows of 8) for a dual-link cable
- A separated 8-pin and 4-pin set is for DVI-A.

## DVI Connector Guide

### DVI-D Single Link

Digital Only



*Two sets of nine pins, and a solitary flat blade*

### DVI-A

Analog Only



*One set of eight pins and one set of four pins, with four contacts around the blade*

### DVI-I Single Link

Digital & Analog



*Two sets of nine pins and four contacts around the blade*

### DVI-D Dual Link

Digital Only



*Three rows of eight pins and a solitary flat blade*

### DVI-I Dual Link

Digital & Analog



*Three rows of eight pins and four contacts around the blade*

### List of DataPro DVI Cables:

- 1141 [DVI-D Single Digital Video Cable](#) - for simple computer/monitor setups
- 1142 [DVI-D Dual Digital Video Cable](#) - the most DVI cable for most applications
- 1149 [DVI-D Dual Digital Video Extension Cable](#) - for a longer DVI connection
- 1143 [DVI-I Panelmount Extension Cable](#) - for installing a DVI port on a plate or bulkhead
- 1145 [DVI-I Analog to VGA/SVGA Video Cable](#) -for connecting a DVI computer to a VGA monitor
- 1145-A [DVI Analog Male to VGA Female Adaptor](#) - for converting a DVI port into a VGA port
- 1145-B [DVI Analog Female to VGA Male Adaptor](#) - for converting a VGA port into a DVI port
- 1146 [DVI-A Analog Video Cable](#) - for analog-only signals over a DVI connector

- 1148 [DVI-I Dual Digital & Analog](#) - for dual digital/analog data capabilities  
1140 [DVI-I DIG/ANA Extension Cable \(M/F\)](#) - for extending both digital and analog signals
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